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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/664,267

09/16/2003

Natalie Timms

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07/12/2007

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EXAMINER

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ART UNIT

PAPER NUMBER

2134

MAIL DATE

DELIVERY MODE

07/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/664,267

Applicant(s)

TIMMS, NATALIE

Examiner

Jason K. Gee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 and 37-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 and 37-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This action is response to communication: amendment filed on 04/30/2007.
2. Claims 1-32 and 37-50 are currently pending in this application. Claims 1, 11, 14-27, and 37 are independent claims. Claims 47-50 are new.
3. No new IDS has been received for this application.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. The previous claim objections have been withdrawn in response to applicant's amendment.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. The previous claim rejections have been withdrawn in response to applicant's amendment.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5-7, 11, 14-16, 18-20, 24, 27-29, 31, 32, 37-39, 41-43, and 47 are rejected under 35 U.S.C. 103(a) as being clearly anticipated by Buer et al. US Patent Application Publication 2004/0005061 (hereinafter Buer), and in view of Markham US Patent Application Publication 2003/0126468 (hereinafter Markham).

As per claim 1, Buer teaches a method for applying a service to an encrypted packet comprising: examining an encrypted packet (paragraph 76); determining whether an identifier associated with the service is present in the encrypted packet (paragraph 76); in response to determining that the identifier is present in the encrypted packet, applying the service to the encrypted packet (paragraphs 76 and 77).

However, at the time of the invention, Buer does not explicitly teach wherein the service is a quality of service parameter. However, this is taught throughout Markham. Markham deals throughout the reference with packets utilizing the IPSEC/IKE protocols as well as utilizing QoS to the encrypted packets, such as in paragraphs 16, 60, and 89, and also in Table 1.

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At the time of the invention, it would have been obvious to combine the teachings of Markham with Buer. One of ordinary skill in the art would have been motivated to perform such an addition to be able to apply quality of service, so as to be able to prioritize traffic (paragraph 89 of Markham). Also, Buer teaches throughout the reference that encrypted packets may be encapsulated, with appropriate identifiers added to the headers (paragraph 40). Buer and Markham are both drawn to the IPSEC protocol, and are analogous art. Further, Genty et al. US Patent Application Publication 2002/0078341 (hereinafter Genty) teaches in paragraph 10 that it is important to apply QoS policies for Ipsec during encryption and decryption processes as it eliminates bandwidth limitations. Genty recites "Therefore what is needed is a way to eliminate and void the bandwidth limitations on a VPN cause by the lack of preferential treatment for high-priority packets during the encryption/decryption process. What is further needed is a system and method that provides priority policies (such as QoS policies) for Ipsec during the encryption and decryption process that enables a high-priority packet to be given preferential treatment over a low-priority packet during the encryption/decryption process."

As per claim 2, Buer teaches encrypting the packet, wherein said step of encryption includes establishing said identifier in the packet (paragraphs 73-75 and paragraph 43)

As per claim 3, Buer recites wherein said identifier is based on at least an Internet Key Exchange (IKE) ID stored in the packet (paragraph 43; paragraph 72;

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wherein IKE is an Ipsec standard protocol). Markham also teaches the use of IKE, such as in paragraph 140-142.

As per claim 5, Buer teaches wherein the identifier is based on at least an entry in a security association database (paragraph 76). Also, Markham teaches this in paragraph 89 and Table 1.

As per claim 6, Markham teaches throughout the reference that identifiers maps to quality of service groups, as can be seen in the rejection for claim 1.

As per claim 7, Buer teaches wherein the identifier is established in a profile of the packet (paragraph 75 recites "the peer assembles the data in a packet, including the identifier"). Also, as taught throughout Buer and Markham, the identifier may be placed in a packet header, which is the profile of the packet.

As per claim 11, Buer teaches a method for applying a service to a packet comprising: encrypting the packet to create an encrypted packet (paragraphs 73-75); examining an identifier in the encrypted packet (paragraph 76), wherein the identifier is based on an IKE ID of the encrypted packet (paragraph 43, 72, wherein IKE is an Ipsec standard protocol); determining whether the identifier in the encrypted packet is associated with a service to be applied to the encrypted packet (paragraph 76); and if it is determined that the identifier is associated with a service to be applied to the encrypted packet, applying the service to the encrypted packet (paragraphs 76 and 77). Also, the additional limitations of this claim are rejected using the same basis of arguments used to reject claims 1 and 3 above.

Claims 14, 15, 16, 18, 20, and 24 are rejected using the same basis of arguments used to reject claims 1, 2, 3, 5, 7, and 11, respectively. Buer teaches a processor to perform such functions, and it is inherent that a computer processing system would include a computer readable medium with instructions to perform the steps taught.

Claims 19 is rejected using the same basis of arguments used to reject claim 6. Buer teaches a processor to perform such functions, and it is inherent that a computer processing system would include a computer readable medium with instructions to perform the steps taught.

Independent claim 27 is rejected using the same basis of arguments used to reject claim 1, wherein an apparatus and the means to perform the methods are taught throughout Buer.

Claim 28 is rejected using the same basis of arguments used to reject claim 2.

Claim 29 is rejected using the same basis of arguments used to reject claim 3.

Claim 31 is rejected using the same basis of arguments used to reject claim 5.

Claim 32 is rejected using the same basis of arguments used to reject claim 6.

Independent claim 37 is rejected using the same basis of arguments used to reject claims 1 and 14 above. Memory, processors, and instructions stored to perform such steps are inherent to the teachings taught in Buer, and may be found, for example, in paragraphs 32-35, 39, 47, etc.

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Claim 38 is rejected using the same basis of arguments used to reject claims 2 and 14 above.

Claim 39 is rejected using the same basis of arguments used to reject claims 3 and 15 above.

Claim 41 is rejected using the same basis of arguments used to reject claim 5 above.

Claim 42 is rejected using the same basis of arguments used to reject claim 6 above.

Claim 43 is rejected using the same basis of arguments used to reject claim 7 above.

Claim 47 is rejected using the same basis of arguments used to reject claim 7 above.

9. Claims 4, 8, 17, 21, 30, 40, 44, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buer and Markham as applied above, and in view of Piper's "The Internet IP Security Domain of Interpretation for ISAKMP" (November, 1998, hereinafter Piper).

As per claim 4, Buer does not explicitly teach wherein the IKE ID comprises one or more of ID_IPV4_ADDR, ID_FQDN, ID_USER_FQDN, ID_IPV4_ADDR_SUBNET, ID_IPV6_ADDR, ID_IPV6_ADDR_SUBNET, ID_IPV4_ADDR_RANGE, ID_IPV6_ADDR_RANGE, id_DER_ASNI_DN, ID_DER_ASNI_GN, and ID_KEY_ID.

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However, these identifiers are well known in the IKE protocol, as shown in pages 19 and 20 of Piper.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include the specific identifiers taught in claim 4. One of ordinary skill in the art would have been motivated to perform such an addition as the identifiers that are taught are standard identifiers in the IPSEC protocol, in which IKE is an IPSEC standard protocol. This is shown in page 17 of Piper, where it indicates in 4.6.1.1 the identifiers in IPSEC.

As per claim 8, Piper discusses the use of ISAKMP throughout the reference, such as in pages 1 and 2.

Claims 17 and 21 are rejected using the same basis of arguments used to reject claims 4 and 8, respectively. Buer teaches a processor to perform such functions, and it is inherent that a computer processing system would include a computer readable medium with instructions to perform the steps taught.

Claim 30 is rejected using the same basis of arguments used to reject claim 4.

Claim 40 is rejected using the same basis of arguments used to reject claims 4 and 17 above.

Claim 44 is rejected using the same basis of arguments used to reject claim 8 above.

Claim 48 is rejected using the same basis of arguments used to reject claim 8 above.

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10. Claims 9, 10, 12, 22, 23, 25, 45, 46, and 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buer and Markham as applied above, and in view of Valenci et al. US Patent Application Publication 2003/0005279 (hereinafter Valenci).

As per claim 9, Buer does not explicitly teach pre-classification of the packet prior to the step of encryption. It does teach, however, associations of identifiers and session keys before encryption, as taught in paragraphs 73 and 74. The pre-classification of the packet itself is taught in Valenci in paragraphs 34 and 37.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include the teachings of Valenci with Buer. Preclassifying a packet is important because it allows a data packet to be processed correctly. This is taught in paragraph 34: "Packet classification feature 351 enables intermediate driver agent 300 to match a data packet with its corresponding crypto information from a table of crypto information so that the data packet can be processed correctly.)

As per claim 10, the Markham and Buer reference teach throughout the reference, as can be seen in the rejection for claim 1, that quality of service is applied based on identifiers and security associations. Valenci then teaches wherein services are applied based the preclassification which are associated with security associations (paragraph 27, 34, 35).

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Claim 12 is rejected using the same basis of arguments used to reject claims 9 and 10 above. Pre-classifying packets based on contents of the packet is taught in paragraphs 34 and 37.

Claims 22, 23, and 25 are rejected using the same basis of arguments used to reject claims 9, 10, and 12, respectively. Buer teaches a processor to perform such functions, and it is inherent that a computer processing system would include a computer readable medium with instructions to perform the steps taught.

Claim 45 is rejected using the same basis of arguments used to reject claim 9.

Claim 46 is rejected using the same basis of arguments used to reject claim 10.

Claim 49 is rejected using the same basis of arguments used to reject claim 9 above.

Claim 50 is rejected using the same basis of arguments used to reject claim 10.

11. Claims 13 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Buer and Markham as applied above, and in view of Ylonen et al. US Patent Application Publication 2002/0062344 (hereinafter Ylonen).

As per claim 13, Buer does not explicitly teach copying at least one bit into a header to identify a characteristic of the packet. However, this is taught in Ylonen in paragraph 11. Applying a service based on the identifier is taught in Buer in paragraphs 73-75, and applying the service based on the header value and the identifier is taught in paragraph 11 of Ylonen.

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At the time of the invention, it would have been obvious to combine the teachings of Ylonen with Buer. Header information including at least one bit to identify a characteristic of a packet is well known in the art, as described in Ylonen. As is taught in Ylonen in paragraph 11, this is well known using the Ipsec protocol, and it would be obvious to combine the features taught in paragraph 11 with the invention of Buer, as Buer teaches the utilization of the Ipsec protocol.

Claims 26 is rejected using the same basis of arguments used to reject claim 13. Buer teaches a processor to perform such functions, and it is inherent that a computer processing system would include a computer readable medium with instructions to perform the steps taught.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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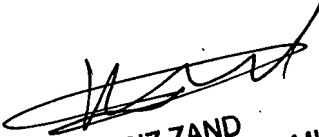
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason K. Gee whose telephone number is (571) 272-6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Gee
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07/01/2007


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